Patent Claims

1. A transmission/heat exchanger unit (1),

1.1 with a transmission (2) comprising an input (E) and at least one output (A);

1.2 with a heat exchanger (3) which is assigned to the transmission (2) on the output side of the latter and which is connected at least indirectly via connecting lines to the transmission (2);

characterized by the following features:

1.3 with a fuel-routing duct or ducts which are integrated in the case (6) of the transmission (2) and which extend at least over part of the axial extent of the case (6) as far as the output-side end face of the transmission (6);

1.4 with a retaining device (5) for fastening the heat exchanger (3) to the output-side end face of the case (6) of the transmission (2);

1.5 the connecting lines (7, 8) for coupling between the fuel-routing duct or ducts in the transmission (2) and the heat exchanger (3) are integrated in the retaining device (5);

1.6 with complementary connections, standardized in terms of type and dimensioning, on the retaining device (5) and the transmission case (6) for fuel routing and for fastening the retaining device.

2. The transmission/heat exchanger unit (1) as claimed in claim 1, characterized in that the connecting lines (7, 8) are arranged at least partially, preferably completely, in the wall (20) of the retaining device (5).

3. The transmission/heat exchanger unit (1) as claimed in either one of claims 1 and 2, characterized in that at least two connections, a first connection (18) and a second connection (19), are provided for the connection of coolant-routing lines to the heat exchanger (3).

4. The transmission/heat exchanger unit (1) as claimed in claim 3, characterized in that the connections (18, 19) for coolant are arranged on the retaining device (5), according to the functional assignment one connection (18) serving for coupling to a coolant supply line and the other connection (19) serving for coupling to a coolant discharge line.

5. The transmission/heat exchanger unit (1) as claimed in claim 3, characterized in that the first and/or the second connection (18, 19) is arranged directly on the heat exchanger (3).

6. The transmission/heat exchanger unit (1) as claimed in one of claims 1 to 5, characterized in that the heat exchanger (3) is designed as a separate unit.

7. The transmission/heat exchanger unit (1) as claimed in one of claims 1 to 6, characterized in that the fuel-routing ducts are cast or worked in the wall of the case (6).

8. The transmission/heat exchanger unit (1) as claimed in claim 7, characterized in that the fuel-routing ducts are cast or worked in a reinforcement of the wall of the case.

9. The transmission/heat exchanger unit (1) as claimed in one of claims 1 to 8, characterized in that the retaining device (5) is fastened to the output-side end wall of the case (6) in the region of an axial reinforcement of said end wall, and the connection is free of a fastening to a transmission cover (21) closing the case (5) on the output side.

10. The transmission/heat exchanger unit (1) as claimed in one of claims 1 to 9, characterized in that connections of standardized design in terms of type and dimensioning are provided on the retaining device (5) for coupling to complementary connections on the heat exchanger (3).

11. The transmission/heat exchanger unit (1) as claimed in one of claims 1 to 8 or 10, characterized in that the retaining device (5) forms with the transmission cover an integral unit.

12. The transmission/heat exchanger unit (1) as claimed in claim 11, characterized in that the retaining device extending through the case cover has the connections for coupling to the connecting lines provided in the carrying element.

13. The transmission/heat exchanger unit (1) as claimed in one of claims 1 to 12, characterized in that the fuel-

routing ducts are arranged in the case wall on both sides of the theoretical prolongation of the axis describing the output (A), the supply lines being arranged on one side and the discharge lines on the other.